

WHAT IS CLAIMED IS:

Sub B' 1. An information record medium comprising:

an audio information recording area on which a plurality of audio information which are different in recording method are recorded; and

a control information recording area on which control information required to reproduce the plurality of audio information recorded on the audio information recording area is recorded,

the control information recorded on the control information recording area including a plurality of first division information for identifying first division units respectively so as to divide each of the plurality of audio information recorded on the audio information recording area by the first division units respectively,

the first division information, which indicates that the audio information divided by the first division units belongs to a same first division unit, being provided for each of the plurality of audio information same in content and different in recording method,

the plurality of audio information same in content and different in recording method, which are identified by the first division information, being recorded on recording positions different from each other in the audio information recording area.

2. An information record medium according to Claim 1, wherein the control information further includes:
a plurality of second division information for identifying

second division units respectively so as to divide each of the plurality of audio information recorded on the recording positions different from each other in the audio information recording area by the second division units as a single reproduction unit; and

a plurality of management information for correlating the plurality of second division information and the plurality of first division information with each other so that the audio information divided by the first division units are composed of one or a plurality of the audio information divided by the second division units, and

the management information is provided for each of the plurality of audio information so as to respectively correlate the second division information, which identifies a same second division unit to which the plurality of audio information same in content and different in recording method belong, with the first division information for identifying the same first division unit to which the plurality of audio information same in content and different in recording method belong, for each of the plurality of audio information same in content and different in recording method.

3. An information record medium according to Claim 2, wherein the management information respectively correlates the second division information for identifying the second division units, the numbers and orders of which are same to each other, with the first division information for each of the plurality of audio information same in content and different in recording method.

4. An information record medium according to Claim 3, wherein the audio information divided by the second division units in accordance with the second division information, which is respectively correlated with the first division information for each of the plurality of audio information same in content and different in recording method, is recorded on the audio information recording area as the audio information, whose reproduction time is substantially same for each of the plurality of audio information same in content and different in recording method.

5. An information record medium according to Claim 1, wherein the control information includes information indicative of the recording method as information to select one of the plurality of audio information same in content and different in recording method to be reproduced.

6. An information record medium according to Claim 1, wherein the recording method is at least one of a recording form, a reproducing form and an encoding method.

7. An information record medium comprising:

a video area on which information including mainly video information and audio information associated with the video information is recorded; and

an audio area on which audio information is mainly recorded,
control information, which is required to search and reproduce

the video information and the audio information, being recorded on the information record medium, and including a plurality of first division information for identifying first division units respectively so as to divide each of a plurality of audio information recorded on the video area or audio area by the first division units respectively,

the first division information, which indicates that the audio information divided by the first division units belongs to a same first division unit, being provided for each of the plurality of audio information same in content and different in recording method,

on the audio area, the plurality of audio information same in content and different in recording method, which are identified by the first division information, being recorded on recording positions different from each other in the audio area,

on the video area, the plurality of audio information same in content and different in recording method being multiplexed and recorded within a same record unit in the video area.

8. An information reproducing apparatus for reproducing an information record medium comprising: an audio information recording area on which a plurality of audio information which are different in recording method are recorded; and a control information recording area on which control information required to reproduce the plurality of audio information recorded on the audio information recording area is recorded, the control information recorded on the control information recording area including a plurality of first division information for identifying first division units respectively so as to divide each of the

plurality of audio information recorded on the audio information recording area by the first division units respectively, the first division information, which indicates that the audio information divided by the first division units belongs to a same first division unit, being provided for each of the plurality of audio information same in content and different in recording method, the plurality of audio information same in content and different in recording method, which are identified by the first division information, being recorded on recording positions different from each other in the audio information recording area, said information reproducing apparatus for reproducing the audio information in accordance with the control information comprising:

a reading device for reading record information which is recorded on the information record medium and includes the audio information and the control information;

an inputting device for inputting designation information to designate a condition to reproduce the information record medium;

a selecting device for selecting the recording method, the audio information in which is to be reproduced, on the basis of the designation information or set information stored in a memory device; and

a reproducing device for reproducing the audio information in the recording method, which is selected by the selecting device from among the plurality of audio information same in content and different in recording method, on the basis of the control information and the record information read by the reading device.

9. An information reproducing apparatus according to Claim 8,

further comprising:

an extracting device for extracting information indicating the recording method of each of the plurality of audio information recorded on the information record medium from the control information; and
a displaying device for displaying the extracted information.

10. An information reproducing apparatus according to Claim 8, wherein

the inputting device is set to receive an input of the designation information regardless of an operation condition of the information reproducing apparatus, and

the selecting device or the reproducing device is set to perform, when a content of the designation information inputted by the inputting device is changed, respective process on the basis of the changed designation information.

11. An information reproducing apparatus according to Claim 8, further comprising a re-writing device for re-writing a content of set information stored in the memory device.

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12. An information reproducing apparatus according to Claim 8, further comprising a warning display device for performing an warning display on the basis of the designation information or the set information if the recording method selected by the selecting device cannot be processed by the information reproducing apparatus.

13. An information reproducing apparatus according to Claim 8, wherein the selecting device is set to select the recording method, on the basis of initial set information stored in the memory device, in an initial setting condition.

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14. An information reproducing apparatus according to Claim 8, further comprising:

a re-writing device for re-writing a content of set information stored in the memory device; and

a warning display device for performing an warning display if the recording method selected by the selecting device on the basis of the designation information or the set information cannot be processed by the information reproducing apparatus,

the selecting device selecting the recording method, on the basis of (i) designation information inputted by the inputting device, (ii) set information re-written by the re-writing device and (iii) initial set information stored in the memory device in an initial setting condition, in this priority order, as long as the warning display is not performed by the warning display device.

15. An information reproducing apparatus according to Claim 8, further comprising a detecting device for detecting an insertion condition of a headphone plug with respect to a headphone jack,

the reproducing device reproducing the audio information which is binaural-recorded if the detecting device detects that the headphone plug is inserted in the head phone jack.

division information with each other so that the audio information divided by the first division units are composed of one or a plurality of the audio information divided by the second division units, and the management information is provided for each of the plurality of audio information so as to respectively correlate the second division information, which identifies a same second division unit to which the plurality of audio information same in content and different in recording method belong, with the first division information for identifying the same first division unit to which the plurality of audio information same in content and different in recording method belong, for each of the plurality of audio information same in content and different in recording method, said information reproducing apparatus for reproducing the audio information in accordance with the control information comprising:

a reproduction time processing device for calculating and storing, while reproducing the audio information divided by the first division units, (i) the second division information which identifies the second division unit which is currently being reproduced and (ii) an elapsed time from a lead of the calculated second division unit or an elapsed time from a lead of the first division unit which is currently being reproduced;

an audio information switching device for switching a reproduction of the audio information divided by the second division units, which are identified by the second division information correlated by the management information with the same first division information and which are different in recording method, for each of the

audio information divided by the second division units; and

a reproduction control device for starting the reproduction from a point, which corresponds to the same second division information as that identifies the second division unit to which the previously reproduced audio information belongs and the same elapsed time stored by the reproduction time processing device when the audio information switching device switches the reproduction.

17. An information reproducing apparatus according to Claim 16, further comprising an audio information processing device for reading out the audio information corresponding to a time duration required for switching the reproduction of the audio information when the audio information switching device switches the reproduction of the audio information,

wherein, (i) while switching the audio information, the audio information switching device reproduces the audio information divided by the second division unit to which the previously reproduced audio information belongs and (ii) when starting the reproduction of the audio information divided by the second division unit after switching, the audio information switching device reads out the audio information at a point corresponding to the elapsed time of the audio information divided by the second division unit, which is currently being reproduced and is identified by the same second division information as that identifies the second division unit to which the audio information before switching belongs, and actually switches the reproduction of the audio information from the point corresponding to the elapsed time.